

NAKANO et al., SN 10/075,244
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REMARKS

This paper is responsive to any paper(s) indicated above, and is responsive in any other manner indicated below.

PENDING CLAIMS

Claims 1-35 were pending in the application, with Claims 19-35 withdrawn from consideration, and Claims 1-18 subject to examination at the time of the Office Action. Unrelated to any prior art, scope or rejection, appropriate Claims have been amended to adjust a clarity and/or focus of Applicant's claimed invention. That is, such amendments are unrelated to any prior art or scope adjustment, and are simply clarified claims in which Applicant is presently interested. At entry of this paper, Claims 1-18 and 36-46 are now pending in the application for further examination.

REJECTION UNDER '112, 2ND PAR. OBVIATED VIA CLAIM AMENDMENT

Claims 1-18 have been rejected under 35 USC '112, second paragraph, as being indefinite for the concerns listed within the section numbered "2" on page 2 of the Office Action. Appropriate ones of such claims have been carefully reviewed and carefully amended where appropriate in order to address the Office Action listed concerns. As the foregoing is believed to have addressed all '112 second paragraph concerns, reconsideration and withdrawal of the '112 second paragraph rejection are respectfully requested.

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35 USC '112, 1ST PARAGRAPH REJECTION - TRAVERSED

Claims 1-18 have been rejected under 35 USC '112, first paragraph, for the concerns listed within the section numbered "3" on page 3 of the Office Action.

Continued traversal is appropriate.

MPEP 2163 states two guidelines of relevance to the present rejection, i.e., "To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention", and secondly, "...the PTO has the initial burden of presenting evidence or reasons why persons skilled in the art would not have recognized in the disclosure a description defined by the claims."

It is respectfully submitted that, in the present situation, the Examiner could not adequately support the rejection, because several examples of "possession" (i.e., complete and operative embodiments) of Applicant's claimed features/limitations are explicitly disclosed within Applicant's specification, sufficiently for a skilled artisan to conclude possession of the invention. More particularly, regarding the disputed "by referring to a data base storing predetermined relationships between a signal", there are at least three different examples in Applicant's original specification.

First, in the paragraph spanning pages 30-31, there is a complete and operative embodiment where a database stores profiles of reflected (scattered) light useable for monitoring a state of contamination of inside walls of a plasma processing chamber. Second, in the paragraph spanning pages 31-32, there is a complete and operative embodiment where a database stores signal strengths of

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reflected (scattered) light useable for monitoring a state of contamination of inside walls of a plasma processing chamber. **Third**, in the paragraph spanning pages 36-37, speckle patterns (i.e., variations in light and shade) may be used for monitoring a state of contamination of inside walls. Clearly, the specification has described three example embodiments which work, and accordingly, it is not known how a skilled artisan could conclude anything besides the fact that Applicant did have possession of the invention. In fact, Office Action comments (e.g., page 4, last two lines) appear to admit that Applicant's specification does include 2-3 examples. It is respectfully submitted that if possession is shown, a "written description" rejection is inappropriate.

On a differing line of argument, the Examiner may be taking a position that omitting a feature from the original claims has invoked a written description problem. That is, MPEP 2163.05 states, "A claim that omits an element which applicant describes as an essential or critical feature of the invention originally disclosed does not comply with the written description requirement." However, it is respectfully submitted that Applicant's "profile", or "thickness" or "speckle pattern" characteristics for relationships stored within Applicant's database, **are NOT ESSENTIAL OR CRITICAL FEATURES of the invention**, and thus, it is respectfully submitted that non-inclusion of the "profile", or "thickness" or "speckle pattern" characteristics does not invoke violation of the written description requirement.

To conclude, it is respectfully submitted that, under US patent law, Applicant is not limited to "picture claiming" the specific embodiment(s) within the disclosure, but instead, absent any "written description" violation, Applicant is allowed to claim as broadly as the prior art will allow. Here, there is no "written description" violation

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as clearly Applicant showed "possession" of the invention (via three complete and working embodiments), and the non-included "profile", or "thickness" or "speckle pattern" characteristics are not essential or critical features.

Based upon the foregoing, reconsideration and withdrawal of the above-referenced rejection are respectfully requested. If the Examiner continues such rejection, the Examiner should provide detailed comments meeting her "initial burden of presenting evidence or reasons why persons skilled in the art would not have recognized in the disclosure a description defined by the claims." as required by MPEP 2163.

Regarding added claims 36-46, it is respectfully submitted that such claims parallel claims 1-11, respectively, except that "database storing predetermined relationships" has been changed to "database means for storing predetermined relationships". Since Applicant's claims 36-46 are written as "means-plus-function" claims, a scope of Applicant's claimed invention, under U.S. patent law, are limited to the scope of the arrangements specifically disclosed within Applicant's disclosure, and equivalents thereof, i.e., attention is directed to the recent In re Donaldson decision, and the recent USPTO Guidelines concerning the construction and interpretation of "means-plus-function" type of claims. Thus, such claims are definitively supported by the "written description" of Applicant's specification.

REJECTION UNDER 35 USC §103 - TRAVERSED

The 35 USC §103 rejection of Claims 1-18 as being unpatentable over Nakano *et al.* (JP 11-330053) and Bennett *et al.* (JP 03-147317/US 5,367,139 A) in view of Katsuyama *et al.* (JP 11-340196) is respectfully traversed. Such rejection

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has been rendered obsolete by the present clarifying amendments to Applicant's claims, and accordingly, traversal arguments are not appropriate at this time. However, Applicant respectfully submits the following to preclude renewal of any such rejections against Applicant's clarified claims.

All descriptions of Applicants disclosed and claimed invention, and all descriptions and rebuttal arguments regarding the applied prior art, as previously submitted by Applicant in any form, are repeated and incorporated herein by reference. Further, all Office Action statements regarding the prior art rejections are respectfully traversed.

In rejecting claims under 35 USC §103, the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. See *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). To reach a conclusion of obviousness under §103, the Examiner must produce a factual basis supported by teaching in a prior art reference or shown to be common knowledge of unquestionable demonstration. Such evidence is required to establish a *prima facie* case. *In re Plasecki*, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984). The Examiner must not only identify the elements in the prior art, but also show "some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead the individual to combine the relevant teachings of the references." *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596 (Fed. Cir. 1988). What a reference teaches is a question of fact. *In re Baird*, 16 F.3d 380, 382, 29 USPQ2d 1550, 1552 (Fed. Cir. 1994) (*citing In re Beattle*, 974 F.2d 1309, 1311, 24 USPQ2d 1040, 1041 (Fed. Cir. 1992)). (*In re Baird* addresses the

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substitution of a claim limitation by an element that is alleged to be the same or to operate the same; "the requirements of the claim cannot be ignored or substituted.")

However, the cited prior art does not adequately support a §103 obviousness-type rejection because it does not, at minimum, disclose (or suggest) the following features/limitations.

More particularly, ones of the features of the present invention which are not described nor suggested in the cited prior art is referring to a data base in obtaining information on a state of contamination of the inside wall of the processing chamber. The database contains information of relationships between signals obtained by the detection of light reflected from the inside wall and states of contamination of the inside wall. That is, it is a database having multiple entries where respective detection signals are corresponded with respective states of contamination.

The Office Action comments regarding claim 1 discuss very little (if anything) regarding the cited references, and instead appears to utilize some type of reasoning regarding "zeroing or calibration" signals which relate to a single "cleaned" state. Such is not a database "storing predetermined relationships between signals obtained from said detection of light from said inside wall and states of contamination of said inside wall."

Regarding independent claim 12, such claim has been clarified.

In short, one feature of Applicant's invention is monitoring the state of the contamination of the inside wall of the processing chamber by comparing a signal obtained from the detection of light reflected from the inside wall with reference data stored in a database as recited in independent claim 1. Such feature is not described nor suggested in any of the prior arts cited by the Examiner.

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Another feature is monitoring the state of the contamination of inside walls of processing chamber while also measuring foreign materials suspended inside the processing chamber while a specimen is processed with plasma. Such is conducted, for example, by splitting light reflected from the inside of said processing chamber in response to a projection of a light beam and passed through a observation window installed on said processing chamber as written in independent claim 12. This feature of simultaneous detection of contamination of inside walls and foreign materials suspended inside the processing chamber is not described nor suggested in any of the prior arts cited by the Examiner.

As a result of all of the foregoing, it is respectfully submitted that the applied art would not support either a §103 obviousness-type rejection of Applicant's claims. Accordingly, reconsideration and withdrawal of such §103 rejection, and express written allowance of all of the rejected claims, are respectfully requested.

RESERVATION OF RIGHTS

It is respectfully submitted that any and all claim amendments and/or cancellations submitted within this paper and throughout prosecution of the present application are without prejudice or disclaimer of any scope or subject matter. Further, Applicant respectfully reserves all rights to file subsequent related application(s) (including reissue applications) directed to any/all previously claimed limitations/features which have been subsequently amended or cancelled, or to any/all limitations/features not yet claimed, *i.e.*, Applicant continues (indefinitely) to maintain no intention or desire to dedicate or surrender any limitations/features of subject matter of the present application to the public.

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EXAMINER INVITED TO TELEPHONE

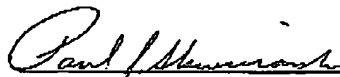
The Examiner is invited to telephone the undersigned at the local D.C. area number 703-312-6600, to discuss an Examiner's Amendment or other suggested action for accelerating prosecution and moving the present application to allowance.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant respectfully submits that the claims listed above as presently being under consideration in the application are in condition for allowance. Accordingly, early allowance of such claims is respectfully requested.

To whatever other extent is actually necessary, Applicant respectfully petitions the Commissioner for an extension under 37 CFR §1.136. Please charge any actual deficiency in fees required for entry of this paper to ATS&K Deposit Account No. 01-2135 (as Case No. 501.41175X00).

Respectfully submitted,



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